

War gains

Traveling exhibit tells the story of how soldier-surgeons' innovations transformed a primitive specialty into modern orthopedics

By Neil Versel

World War II transformed orthopedic surgery from the treatment of deformities into a modern specialty devoted to trauma care, a transformation depicted in the "Legacy of Heroes" multimedia presentation honoring the soldier surgeons.

The American Academy of Orthopaedic Surgeons has put together a book, traveling exhibit and award-winning documentary on DVD that captures the stories of physicians whose innovations created modern orthopedics.

"It was a very primitive specialty at the time," says Samuel Fraerman, M.D., who took part in the battles of Naples and Monte Cassino in Italy as part of the Army's 16th Evacuation Hospital, following not far behind front-line soldiers.

Fraerman is one of nearly 120 wartime physicians—now in their 70s and 80s—whose stories appear in "Legacy of Heroes." He spoke to reporters on Veterans Day at a tour stop at the International Museum of Surgical Science in Chicago.

Wounded in Action is the documentary film accompanying the exhibit, which will

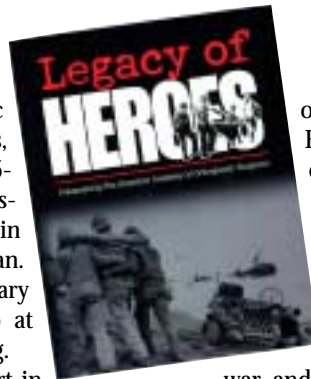
be at the Society of Orthopaedic Military Surgeons, Honolulu, Dec. 15-20; and at The Discovery Center in Springfield, Mo., Jan.

12-Feb. 6. The exhibit itinerary can be found on the Web at www.legacyofheroes.aaos.org.

The DVD, recorded in part in the Normandy region of France and at Pearl Harbor, Hawaii, features some of the physicians talking about their harrowing experiences treating war casualties. On Nov. 7, the academy won an International Health & Medical Media Award—also known as a Freddie—for *Wounded in Action*.

"If you can keep a dry eye during that film, I'll cough up a hundred bucks to you," AAOS Medical Director William Tipton Jr., M.D., says half-jokingly.

During the war, American military physicians developed hand surgery, prosthetics and spine surgery. Other orthopedic achievements of World War II include joint replacement, bone fusion, fixation and widespread use of antibiotics.



"We learned to do the kind of surgery we needed to do," Fraerman says. This included removal of dead tissue, shrapnel and bullets, as well as leaving a wound open to prevent infection prior to setting a fracture. Penicillin was not available until the final months of the war, and plasma was in short supply.

Mostly, the surgeons learned on the job. Fraerman was 15 months into his 18-month internship and had never received orthopedic training when he was called into duty in early 1942.

The war also produced the concept of the "golden hour" after a traumatic injury, the window of maximum opportunity in which the life of a wounded patient could be saved, according to Dominick Paparella, D.O., the present-day chief of orthopedics at Great Lakes Naval Hospital in North Chicago, Ill.

"Since World War II and Korea, the goal has been to get surgeons as far forward as possible to get the wounded within that hour," Paparella says. ■

Photos: American Academy of Orthopaedic Surgeons, Legacy of Heroes



Operating room at an evacuation hospital in France. Samuel Fraerman, M.D., today (inset) and on a ship during the war (right, fourth from left).